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AMENDMENT TO THE CLAIMS

1. (Currently Amended): A medical device comprising a composite having an inorganic substrate and a polymer covering ~~at least a portion~~ all of the substrate, the polymer forming a structure substantially different from the structure of the substrate, and providing the form of the device.
2. (Original): The medical device of claim 1 wherein the inorganic substrate comprises metal.
3. (Original): The medical device of claim 1 wherein the inorganic substrate comprises a ceramic.
4. Canceled
5. (Previously Presented): The medical device of claim 1 wherein the polymer is selected from the group consisting of polyetheretherketones, polyacetals, polyethersulfones, polyarylsulfones, polyetherimides, polycarbonates, and polysulfones.
6. (Original): The medical device of claim 1 wherein the polymer has an average thickness of at least about 10 microns.
7. (Original): The medical device of claim 1 wherein the polymer has an average thickness from about 100 microns to about 2000 microns.
8. (Original): The medical device of claim 1 wherein the medical device comprises a heart valve prosthesis, the heart valve prosthesis comprising a component that comprises the composite having the inorganic substrate and the polymer material.

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9. (Original): The medical device of claim 1 wherein the polymer material has structure forming a slot, hole, pin, button, barb or anchor.

10. (Currently amended): A medical device comprising a flexible composite component comprising an inorganic substrate and a polymer member covering at least a portion of the substrate, wherein the flexible composite component can be bent through a cross section of the flexible component composite at least about 100 degrees without extending the flexible composite component beyond its elastic limit.

11. (Original): The medical device of claim 10 wherein the inorganic substrate comprises a metal foil with a thickness less than about 500 microns.

12. (Original): The medical device of claim 10 wherein the polymer is selected from the group consisting of polyurethanes, polydimethylsiloxanes and polytetrafluoroethylenes.

13. (Original): The medical device of claim 10 wherein the polymer member has a thickness from about 10 microns to about 500 microns.

14. (Original): The medical device of claim 10 wherein the polymer member has a thickness from about 50 microns to about 300 microns.

15. (Previously Presented): The medical device of claim 10 wherein the medical device comprises a heart valve prosthesis and the composite component comprises leaflets.

16. (Previously Presented): The medical device of claim 10 wherein the flexible composite component can be bent about 180

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degrees without extending the flexible composite component beyond its elastic limit.

17. (Previously Presented): The medical device of claim 10 wherein the flexible composite component can be bent about 180 degrees with a radius of curvature of about the thickness of the composite without extending the flexible composite component beyond its elastic limit.

18. (Previously Presented): The medical device of claim 10 wherein the flexible composite component can be bent about 60 degrees for about 40 million cycles without significant structural failure.

19. (Previously Presented): The medical device of claim 10 wherein the flexible composite component can be bent about 60 degrees for about 400 million cycles without significant structural failure.

20. (Original): The medical device of claim 10 wherein the composite further comprises a diamond-like carbon coating over at least a portion of the polymer.

21 - 30 Canceled

31. (Previously Presented): The medical device of claim 1 wherein the polymer is crosslinked.

32. (Previously Presented): The medical device of claim 1 wherein the polymer is rigid.